

DURHAM, (J. H.)

EDUCATED DENTISTRY.

PRESIDENTIAL ADDRESS,

DELIVERED BY

Dr. J. H. DURHAM,

BEFORE THE

N. C. State Dental Association,

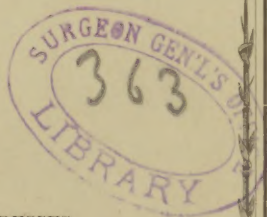
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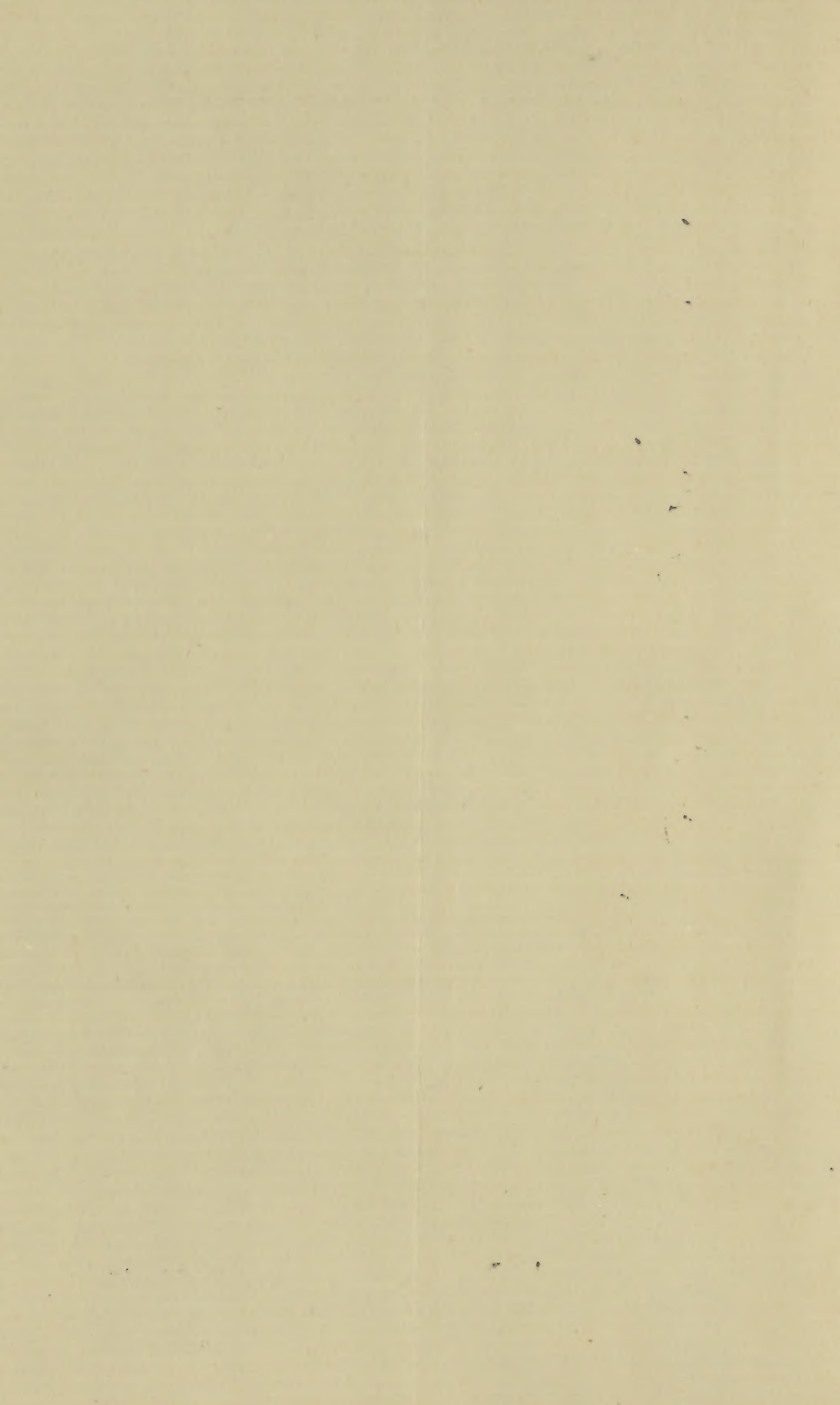
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EDUCATED DENTISTRY.

Presidential Address delivered before the N. C. State
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GENTLEMEN.—When the practice of Dentistry first claimed the attention of the early writers of the east, it had not advanced to such an appreciable extent as to impress upon the minds of those who then gave it an occasional passing notice, the belief that it would in future years grow and develop into the magnificent proportions which we of the present day behold. The first dental operations of which we have any account by the ancients, were so simple in their nature and so limited in extent, consisting at first, and for a long time thereafter, exclusively in the extraction of teeth, that they did not create the admiration and enthusiasm for study which graver and more important operations upon the living subject excited. They were executed by unskillful and unintelligent operators, with crude and imperfect instruments, and were regarded by the more intelligent as being almost entirely a local remedial agent, whose field of usefulness, while it was furnished by the human subject principally, yet was exterior and its avenues of approach easy and simple. Its obvious want of importance and significance, then, at that early age, only entitled it to a mere existence, without any claim for further development. It was not of such a nature as to give assurances of any depth whatever, in which there was concealed so much inestimable good which has accrued to the human family ; all of its virtues seemed to be plainly visible upon the surface, and furnished no field of labor in which



the inventive genius of man could exercise itself in the least.

We find among our first intelligent impressions of human nature, to encounter and overcome difficulties is one of its pre-dominant features; but the extremely limited extent to which dentistry had advanced in the early history of civilization fails to produce an obstruction that would arouse the mental faculties to anything like a respectable effort. This state of affairs, coupled with a want of an intelligent application of the good ultimately to be derived from so simple an operation as the extraction of a tooth, is why for years and centuries it struggled for an existence, while other arts and sciences whose origin was cotemporaneous with that of dentistry, marched rapidly to the front and engaged the intelligence of civilization until the light of the present century dawned upon a generation of people, the startling results of whose mental capacities have revolutionized the world, and approach in point of wonder and admiration the mysteriously wrought miracles of the early prophets.

Dentistry, like medicine, in the earliest history of the world, and ere the light of civilization had dissipated the dark clouds of ignorance and superstition, had its origin through necessity; that it is akin to and closely allied with medicine we admit; that it is one of the several specialties which, when taken collectively, constitute the profession of medicine, we do not deny, but do not admit that the dentist is the offspring of the physician, because the nature of the necessity which created one is totally different from the nature of the necessity which created the other. For instance, the cause or causes which necessitated the first dental operation were very different in character and location from those which necessitated the first internal administration of a drug, the performance of both events marking the beginning of the two professions. It is claimed by some that our origin as a profession is the result of the more perfect development of medicine, and by others, that in consequence of the nature of our origin we have to im-

bibe of the fountain of medical literature in order that we may practice our profession intelligently. The date of the origin of the two professions, and the early history of this so-called medical knowledge of the human subject, will not substantiate these claims ; for the origin of one was contemporaneous with that of the other, and we have ancient historical authority for saying that the first attempt to discover the anatomical arrangement of the human body was made by dental operators four or five hundred years before Christ.

In view of these facts, then, we claim to be representatives of a profession of science whose origin was not incident to nor dependent upon that of any other. That the intelligent dentist is as indispensable as the oculist or aurist, in the complete make-up of the profession of medicine, no one will deny ; but dentistry, unlike any other specialty of this learned and honored profession, can be practiced to a much greater extent without invading the domains of medicine proper, its operations being of such a character as to not often necessitate the internal administration of a remedy for the successful accomplishment of the object for which they were intended. But why consume time in attempting to show the intimate relationship of the two professions, and the indispensability of the one to the complete successful, intelligent practice of the other, when the intelligent patient of to-day realizes the scientific principles of both ? It would be a poor compliment to the educated dentistry of to-day to say that we are constantly clamoring for equal recognition with the medical profession in order that we should be meritoriously appreciated. The scientific ground-work upon which we stand to-day is of sufficient strength and durability to send us down the corridors of time fit and honored companions of all the arts and sciences of the present age. Our merits and the good the public derives from our operations are our defence and protection, and have gained for us an *entree* to the higher walks of social life, which a recognition by any particular profession could never have accomplished.

The age in which we live, by its wonderful discoveries and startling inventions, has been fitly termed one of rapid progression. Waste places have been filled up and profitably utilized, and new life imparted to enterprises hertofore considered dormant and worthless. It is an age in which the crowning point of the perfection of human ingenuity seems to have been reached, and is wrapped in the grandeur of its own unrivalled sublimity ; it is an age in which civilization has chased to the remotest corners of the inhabitable globe ignorance and superstition, there to await the probably slow, but inevitable approach of their common enemy ; and every vocation in life, from the humble, though honorable, tillers of the soil, to the great rulers of mighty empires and proud republics, seems to have caught its inspiration and had emblazoned upon their banners the symbolic motto of Upward and Onward. In the beginning of this great era, and ere its rising sun had climbed high in the eastern horizon of this period of rapid progression, and kissed the dew-drops of the fading morn of a once great age in the world's history, the advocates of dentistry did not allow it to grovel in the dust by the wayside, to watch the onward march of other arts and sciences to future victory and imperishable fame ; but arousing themselves from the Rip Van Winkle slumbers of old, arose, as befitting knights, to the emergency of the occasion, and with colors flying and armed and equipped for the fray, marched side by side with the leaders of other sciences and with them planted its banner with pride and honor upon "Fame's eternal camping-ground."

For dentistry to have attained to its present exalted position required no little time and no mean effort ; it had to overcome a vast amount of ignorance and outlive a great many prejudices. It was not till within the last half century that any degree of intelligence embarked in its behalf and imperfect instruments were cast aside as perpetuated relics of ancient barbarism. It was not till within the last half century that the inventive genius of man

turned its attention to the limited field of labor which it then presented in all of its departments, and by its beneficial results began to rob it of some of its terror and excruciating pain. And chief among the results of this human ingenuity may be mentioned Anesthesia, the greatest remedial agent to suffering humanity the world has ever known. It was within the memory of the dental student of only a few years ago that the hum of the engine and the click of the electric mallet rendered a dental outfit incomplete without them ; and the same period that gave to the dental world these two indispensable appliances took another step in advance and revealed to the perplexed operator and anxious patient the blessings and comforts of the "Rubber Dam." Nor did the spirit of revelation quit the field of dentistry at this point, as the practical value of more recent appliances will testify, but finding its boundaries far-reaching and its resources for quickening human ingenuity so abundant, that it disported itself in its wholesome atmosphere, until to-day, when in point of rapid development and perfection it stands abreast with any art or science of the present time. What better proof, and more conclusive from its very nature, would a skeptic upon this assertion want than the undeniable fact that the profession which claims us as an offspring is daily invading our domains in quest of our remedial agents with which to perform painless operations, and our appliances with which to accomplish better results in the practice of surgery. For who will attempt to deny but that to the dental profession anasthesia owes its existence? For it was none other than a dentist who discovered its practical application and inestimable good to suffering humanity.

Having glanced slightly at the earliest inception of dentistry, as inaugurated by the ancients, having noticed the many difficulties it had to overcome, that it might for years and even centuries claim only a living share of intelligence and ingenuity; and having glanced at the false and frequently insignificant position to which it has been assigned,

we come now to study its merits and to rejoice with those who have received its many benefits, that it occupies an exalted position among other arts and sciences, and has a hold upon the intelligence of the country which gives to it the characteristic features of a well-defined, isolated individuality.

We mean here advanced, intelligent dentistry, such as practiced by an educated and skillful operator, and not that which has been so productive of mischief to the public and so instrumental in bringing ridicule upon the profession. And here we are reminded by the history of success in our own profession, as well as by that in all others, that the ultimate success in any enterprise, of whatever nature it may be, depends more largely upon a thorough preliminary mental preparation on the part of those engaging in it than upon any other one element entering into its organization; and the negligence of this first and most important step in the embryonic stage of any undertaking is surely to be followed sooner or later by the inevitable construction of an unsightly monument to ignorance and stupidity. It is necessary then, therefore, in this, as well as in all other learned professions of this enlightened era, that the mental capacity of him who contemplates its study shall be of such depth and cultivation as to render him a contributor and an ornament, rather than a disgrace and a hindrance to it. We have already in our profession too many of those whose mental capacity, either from nature or from a negligence of early cultivation, are insufficient to permit, however good may be their intention, an honest and conscientious discharge of the duties devolved upon them. It is therefore ignorance, and not a want of a high degree of merit in our profession, that has given origin to the undignified and unprofessional terms of "tooth doctor" and "tooth carpenter." And this source of ignorance owes its existence in our ranks, as well as in the ranks of a great many other vocations in life, to a want of an intelligent appreciation of this state of affairs on the part of our leg-

islators. As they strive to enact laws for the protection of society, personal safety and property, they should also feel it a duty equally incumbent upon them to enact stringent laws for the protection of unfortunate and suffering humanity against the injuries and frauds of quackery. This protection has been given to the public of North Carolina, and upon our exertions, individually and collectively, depends its successful perpetuation, and it now remains with this Association to so elevate and maintain the standard of dentistry that it shall be worthy of the official source from which its succor emanated.

The merits of dentistry do not consist in mechanically stuffing, filling or plugging a cavity with gold or any other filling material ; they do not consist in the mere extraction of teeth, nor altogether in fashioning an artificial denture to take the place of the natural organs ; yet the arrest of decay by a successful filling, and the relief of pain which follows the extraction of an offending tooth and the comfort derived from an accurately adjusted denture, entitle these mechanical operations to that amount of merit which an intelligent patient invariably bestows upon them. But the principal merit of dentistry, that which elevates it above the plane of the mechanic, and gives to the profession a position of dignity and learning, is an intelligent appreciation of all the maladies of the oral cavity from an anatomical, physiological and therapeutical stand-point. An operator having the anatomical arrangement of the osseous, muscular, circulatory and nervous systems of the human body plainly delineated in his mind, and knowing their physiological action, finds it comparatively easy to arrive at an intelligent diagnosis of the disorders submitted to him for investigation and correction ; and his knowledge of therapeutics will enable him, theoretically, to apply his remedies with a reasonable assurance of success. No one, however clever he may be by nature, can correctly solve the mysteries which are daily arising in this profession from disordered organs, without first having taken the prelimi-

nary steps to provide himself with their anatomical structure and physiological properties. Nor would he be but slightly advanced should he, after arriving at this point, disregard the knowledge of the therapeutical action of internal and local remedies; for it is to the advanced stage of this branch of science that not a few operators owe their enviable reputations as skillful and successful practitioners.

Our merits as a learned profession are frequently put to the test by the knowledge we display of the structure and functions of the organs to which our attention is directed in search of trouble, and nothing so readily and effectually impresses upon the mind of an intelligent patient the existence of this quality, as our success in revealing the source of trouble and its complete eradication, either by a skillful application of some of our mechanical appliances or by an intelligent administration of some of our therapeutic agents.

As a profession, we would not be looked upon with any degree of suspicion whatever, in regard to possessing this particular virtue and qualification for intelligent appreciation, but for the fact that our ranks heretofore have been unprotected against the shameful invasion of ignorance and illiteracy. The life-blood of educated dentistry has been sapped by a set of merciless vampires, whose greed for gain falls but little short of theft, and the skeptic, ever alert to propagate and strengthen his individual doubts, does the truly meritorious an injustice by seeking to discredit the virtues of an honorable qualification, obtained by laborious and patient study. How often have we heard the discrediting remark by those who unfortunately fell in the clutches of the horde of quacks that so extensively figured in our profession only a short time ago, and to a certain extent now, that "they would be better off if a dentist had never looked in their mouths." And even now the skeptic will greet you with the unsatisfactory remark that when you start to the dentist you have to keep it up, or the contemptuous expression that "Dr. A. or B. ruined my teeth," when really the condition of affairs is the result

of a flagrant want of cleanliness, or a gross violation of the laws of nature. Could a more excellent opportunity than this be presented for educated dentistry to rise to the full height of its dignity and importance, and with the effectual requirements of the occasion, assume with full force and effect the defensive, and convert this inexcusable ignorance, begotten of unreasonable prejudice, into an intelligent appreciation of the merits of the present state of perfection of the dental profession? What more favorable opportunity would an educated operator want, to let his professional light so shine that the "wayfaring man, though a fool, shall not err therein"?

Educated denistry has other and far more important duties to perform than the filling and extraction of teeth. These are operations which any trained mechanic can do, and should be an educated operator's last resort in his process of correcting and restoring disordered and impaired nature. And chief among those duties is the education of the public to a proper appreciation of the vital importance of observing strictly the laws of nature governing the growth, development and care of the teeth. He who succeeds, theoretically, in the discharge of this duty, is a pioneer in the further development of intelligent, scientific dentistry, and is far more meritorious of an honorable recognition by a grateful public than he who seeks by his mechanical means and appliances to repair an injury which in all probability has resulted from his ignorance and stupidity.

Our profession has advanced to such a state of perfection, and our knowledge of the circumstances under which the dental organs are most apt to suffer, is of such an unerring nature as to warrant an educated operator, first, in the adoption of preventive measures, and second, in the adoption of restorative measures when the former fail. If by preventive measures, such as intelligent advice in the development and growth of the teeth, an operator succeeds, even partially, in warding off the attacks of decay, he has

made a rapid stride in the ultimate fulfillment of the mission upon which we are all journeying. The object of our mission is to watch over the early development, growth and future care of these organs, just as it is the duty of the intelligent physician to watch over the growth and development of a child from embryo to manhood. If then we labor intelligently and honestly to discharge our duty, nature will greet us with a full measure of her part of the contract; for in the wise dispensation of Providence "every wrong has its right, every vice its virtue, every poison its antidote, and every malady its remedy," and upon our intelligence of the mysterious manner in which nature, under favorable circumstances, performs well her work, depends our successful application of the many resources placed at our disposal.

That we may not, then, be blind leaders of the blind, and that we may not grope our way in darkness through a profession whose beacon light now sheds a halo of lustre over every civilized part of the inhabitable globe, we must familiarize ourselves, as far as the dental literature of the present day will enable us, with nature's wants, and having done that, we will have constructed the groundwork of a bright prospect for a future fruitful career. The rest is comparatively easy, the source from which we gather our elements of supply being ever present and inexhaustible. It then only remains for us to direct the kind and proportion in which they are to be utilized, that we may the more easily and successfully accomplish the object for which we are striving.

The question, then, that naturally presents itself to the student of dentistry at this point is, what is the simplest, surest and most ready method by which a confiding public can derive any good from our knowledge of the wonderful mechanism of the process of disintegration and repair, through which the whole human system is maintained in a healthful normal condition. It is that method which will give rise to the adoption of those modes of living that will

assist rather than retard nature in the perfect discharge of her duty ; it is that method by which we select the proper articles of food which will supply, approximately, the elements, both animal and mineral, which we find, upon a chemical analysis, enter into the composition of a perfectly developed tooth ; it is that method which, when universally adopted, will sound the death-knell of chalky and imperfectly developed teeth. The intelligent mechanic displays his superiority in his special department by his thorough knowledge of the material with which he has to deal ; the physician builds up the shattered constitution of his patient by knowing nature's demands and supplying them ; and why should not an educated dentist be as efficient in his sphere in availing himself of the many valuable resources which a kind Providence has placed at his disposal ? To say that he is not would be to acknowledge ourselves inadequate to the task we have chosen to perform. To render, then, an educated operator efficient in his practice and to place him in a position where he can call nature to his assistance, necessitates on his part a merciless and unrelenting war upon some of those senseless, fastidious habits which have crept in the mode of living in latter years.

Is there one among us who has read the dental literature for the past half century, who cannot see the vast difference in the structure of the teeth then and now ? Was the profession then appalled and dismayed by the overwhelming array of chalky and imperfectly developed teeth which it is our misfortune of the present day to encounter ? The answer to this is most satisfactorily and happily seen in the mouths of those old patients of ours whose vital forces were not deprived of those elements of nutrition which performed such an important part in contributing to the perfect development of all their organs by the time they arrived at the age of maturity. Do we not find in the mouths of these old landmarks of the past an unmistakable evidence of a radical wrong, and knowing the state of perfection to which our profession has been brought, is it

not reasonable to suppose that this condition of affairs is attributable more to the recently acquired habits of society than to a want of a proper appreciation on our part of the anatomical and physiological structure of these organs ! Then away with these injurious, fastidious habits of life, and let us, one and all, return to those old, simple, yet sensible, modes which have contributed more solid comfort to the human family than we have ever been able to bestow upon it by all of our filling materials and mechanical appliances.

Nature never provided a nursey in which to rear a child as we would a tender plant in the hot-house, and yet we are daily surrounded with evidences of this mistaken protection. It requires no effort on the part of him who is an observant student to behold the frightful results of misapplied natural resources. What stronger proof of the existence of this fact do we want than that which is to be found in a comparison of the rich with the poor, the civilized with the uncivilized ? In the former we find a typical specimen of aborted nature, but in the latter we behold the beauties and strength of her perfect handiwork. Why this discrepancy in individuals belonging to the same race and generation, and living in the same locality abundantly supplied with nature's choicest articles of food ! This is easily accounted for by visiting the palace of the one and the humble cottage of the other ; the inmates of the former are constantly breathing impure air, and from a ridiculous notion live on articles of food which have been largely deprived of those elements of nutrition which perform a most important part in the perfect development of the osseous system of the human body ; and it is the perfection or imperfection of this system that makes the resistive and recuperative powers of an individual strong or weak. The latter, quickened by the necessities of want, live more in the open atmosphere and enjoy wholesome exercise so indispensable to healthy growth and development, and consume those articles of food which have not been deprived

of their properties of nutrition. (It is then, in a theoretical point of view, of some advantage to be poor.) We might ask, and very reasonably too, whether or not civilization has been a benefit or a curse, as touching the preparation and consumption of the elements of health-giving nature?

The circulatory system, which is one of the three important factors in the tripod of life, is the great medium through which the whole animal economy is fed; and it is here in this medium, in the perfectly developed being, we find a full stock, and in their proper proportions, of the elements of nutrition which are being freighted to the organs and systems for which they were created as food. And when this common carrier has been deprived of any element, or part thereof, of its valuable cargo, when the source from which it derives its ingredients is inferior, then the whole system depreciates below its normal healthy condition; for upon the perfect performance of the functions of one organ or system depends the normal standard of the others. So, then, when our articles of food, such as are consumed by the fastidious, are deprived of any of their natural elements, that organ or system whose supply is thus cut short suffers in consequence.

Then it is the duty of the intelligent dentist to war unceasingly upon those false modes of life which have contributed so largely to the production of the vast array of perverted nature, and insist upon the general adoption of those habits and diet which will soon begin to eliminate from the nomenclature of dentistry the deceptive and muchly despised chalky tooth. What more beautiful display of the practical good and virtues of educated dentistry do we wish to behold than that shown and derived from the intelligent advice given by an educated operator to our female patients, during the terms of gestation and lactation. We know that during this period of reproduction a certain amount of bone-producing material is diverted from the mother and carried to develop the skeleton of the fetus, and it is upon occasions of this kind that the former beau-

ties of nature are kept up to their normal standard by a timely and judicious interference of educated dentistry in advising an increased supply of those elements of nutrition to meet these new demands.

The educated dentist having the love and welfare of his profession at heart, as well as his love for his fellow-man, and knowing the composition of this new being that is about to be launched upon the arena of life, foretells the untold misery to which it will be subjected in consequence of an arrest of development, steps into the breach, and with the sceptre of authority, born of education, defies the insidious attack of disease, and contributes his might to aid nature in the perfect reproduction of her kind. He knows the elements requisite for the perfection of the work nature has begun, and he so disposes of the resources at his hand as to enable his patient, intelligently and physiologically, to partake of them, thereby filling, in a marked degree of success, his grateful mission of intercession between health and disease, or perfection and imperfection.

The teeth of the ancients were not of this latter-day fabricated mass of chalk. And why? Because they consumed the articles of food as it had been given to them by nature, and not as it is remodeled by an erroneous process of civilization. Their teeth served well their purpose, as is evidenced by their perfect development, and the present state of perfection of whole sets now to be found in the mouths of Egyptian mummies centuries old. We know from the history of our profession, ere it winged its flight from the shops of the mechanics, that the dental organs were of sufficient strength and durability as to almost completely resist the then slight tendencies to decay. But how is it now? The deplorable state of the teeth of our young patients of to-day tells us in unmistakable language the sad degeneracy of these organs. Then whole sets of teeth followed their owners to the grave, many without repair, after long years of constant and profitable use.

In the light of the present age, and knowing the

chemical constituents of these dental organs, and having ready access to all the natural elements that surrounded the ancients, it will be an irrasible stigma upon this latter-day civilization and progressive dentistry, if these chalky teeth do not become, in a great measure, a thing of the past. It is here in this state of affairs and upon this imperfect groundwork of nature that the great secret of failure in so many beautiful operations is to be found. Then why not devote our services, to the best of our ability, as co-laborers with nature and enthrone her once more upon her pinnacle of virtuous protection, instead of devoting so much of our time in becoming skillful in stuffing these dental organs full of unsightly masses of gold and amalgam? It is not, however, to be understood, that we deprecate for one moment the many virtues of skilled operations when restorative measures are resorted to.

This, gentlemen, is a sparsely and poorly defined picture of preventive, preservative educated dentistry, and he whose efforts are crowned with the greatest success in it, is he who contributes the greatest amount of relief to suffering humanity and is its greatest blessing.

